

Applicants also note with appreciation the indication that Claims 6 and 29 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. However, those claims have not been rewritten in independent form at the present time, because Applicants believe the independent claims from which they depend are allowable for the reasons given below.

Claims 1-5 and 31-33 stand rejected under 35.U.S.C. §102(e) as being anticipated by U.S. Patent No. 6,480,337 (Inoguchi, et al.). Claim 30 stands rejected under 35.U.S.C. §103(a) as being unpatentable over Inoguchi, et al. in view of being well known in the art. These rejections are respectfully traversed for the reasons discussed below.

Initially, Applicants note that Inoguchi, et al. is the U.S. counterpart to EP 1043619 ("the EP '619 document"), and the contents of both documents are almost the same. Claim 1 was previously rejected over the EP '619 document, but in view of the arguments submitted in the February 4, 2003 Amendment, the Examiner withdrew the rejection and allowed Claim 1 over the EP '619 document. For similar reasons, Applicants submit that Claim 1 is also allowable over Inoguchi, et al.

More specifically, as recited in independent Claim 1, the present invention includes, *inter alia*, the feature of an optical surface A functioning as a reflecting surface in association with the illumination optical system and as a transmission surface in association with the display optical system, wherein the condition  $20 \text{ deg} < \alpha < 70 \text{ deg}$  is satisfied, where  $\alpha$  is an angle defined between the incident light and the reflected light of a reference ray when the reference ray is incident on and is reflected from optical surface A. Due to this feature, an apparatus can be made more compact yet have a well-structured optical system. As discussed, for example, at page 34, line 6 through page 35, line 10 of the specification, if the angle  $\alpha$  is below 20 deg it is difficult to arrange the illumination optical system and the display means so as not to interfere with each other, and if the angle

$\alpha$  is greater than 70 deg., the illumination optical system including the illumination light source becomes projected toward the eye side of an observer and the thickness of the apparatus increases to create a bulky apparatus.

As recited in Claim 1, the present invention also includes (among others) the feature wherein a reference ray that is part of the illumination light from the illumination means is substantially perpendicularly incident on the display means. By this feature, degradation of the contrast of an image can be prevented if a liquid crystal device (LCD) is used as the display means. In particular, the characteristics of an LCD used as display means are such that the contrast of an image is lowered if the illumination light is obliquely incident on the display means. By providing the feature wherein the illumination light is substantially perpendicularly incident on the display means, as recited in Claim 1, this problem can be avoided, as discussed for example at page 36, line 16 through page 37, line 2 of the specification.

Applicants submit that Inoguchi, et al. fails to disclose or suggest at least the above-mentioned features of the present invention recited in Claim 1. Inoguchi, et al. does appear to disclose, in Figs. 4-12, that a reference ray among light beams emitted from an illumination means is incident on and reflected from an optical surface that is commonly used in both an illumination optical system and a display optical system and functions as both a transmitting surface and a reflecting surface. However, Applicants submit that Inoguchi, et al. is completely silent as to the arrangement between the illumination means and the display means to satisfy the condition of the angle defined between the incident and reflected reference ray, as recited in Claim 1. Moreover, Applicants submit that it is apparent from the embodiments shown in Figs. 4-12 of Inoguchi, et al. that the angle  $\alpha$  defined by the incident light and the reflected light does not satisfy the claimed condition of  $20 \text{ deg} < \alpha < 70 \text{ deg}$ , but instead the depicted angle in those embodiments appears to be greater than 70 deg.

Further, although Fig. 8 of Inoguchi, et al. shows that the incident light of the illumination light on the display means overlaps with the reflected light, that patent is completely silent regarding any structure such that the illumination light from the illumination means is substantially perpendicularly incident on the display means. Nor does that patent disclose or suggest the meritorious effects obtained by such an arrangement. Accordingly, Applicants submit that the present invention recited in Claim 1 is patentable over the cited art.

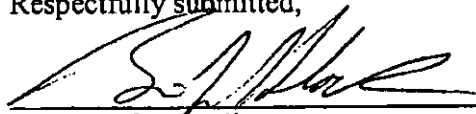
Claim 31 recites the same essential features as Claim 1 discussed above, and Applicants believe Claim 31 is allowable for substantially the same reasons as Claim 1.

For the foregoing reasons, Applicants submit that Claims 1 and 31 are also allowable over the art of record. The claims dependent therefrom are believed to be allowable at least for the same reasons as Claims 1 and 31, as well as for the additional features recited by those dependent claims.

In view of the foregoing, Applicants request favorable reconsideration, withdrawal of the outstanding rejections, and an early Notice of Allowance.

Applicants' undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 530-1010. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,

  
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